

The Phonetic Characteristics of Implosives in Wuyang Dialect

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Abstract

This thesis seeks to answer two questions:

1. What is the distinctive feature of implosives that marks them out from voiced stops and other sounds? This is the area in which the classic definition of implosives has given rise to most confusion.
2. Why are implosives phonologically so close to sonorants? The previous studies rarely address this question, especially from the intrinsic phonetic aspect.

The results of the aerodynamic experiment show that it is the increasing transglottal air pressure rather than the negative intraoral pressure that characterizes this class of sounds. The results of the acoustic experiment confirm this physiological feature, showing that the amplitude of F1 rises as a result of the increasing transglottal air pressure.

The results of the physiological experiment, on the other hand, demonstrate that the speaker may vent extra air through the nasal cavity to maintain the increasing transglottal air pressure. The attribution of nasal features to the implosive by coupling with the nasal cavity is shown in the data from the acoustic experiment, in which the spectra of implosives are similar to that of the homorganic nasals and lateral. The perception experiment confirms the perturbation between implosives and the homorganic sonorants.

The thesis consists of five chapters, including an introduction. In Chapter 2, variants of implosives are discussed and their aerodynamic parameters shown. In Chapter 3, spectra of implosives are compared with spectra of the homorganic nasals and lateral. In Chapter 4, a perception experiment is carried out to test the perturbation between implosives and sonorants. Finally, in Chapter 5, it is proposed that the

implosive is a class of sound characterized by the presence of increasing transglottal air pressure during the occlusion.